

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**
(day/month/year)

Applicant's or agent's file reference

R.305573 H1/Os

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/DE2004/001997

International filing date (day/month/year)

08.09.2004

Priority date (day/month/year)

24.11.2003

International Patent Classification (IPC) or both national classification and IPC

F02M45/08, F02M61/16

Applicant

ROBERT BOSCH GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
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International application No.

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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
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International application No.
PCT/DE2004/001997

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement				
Novelty (N)	Claims	4-9		YES
	Claims	1-3		NO
Inventive step (IS)	Claims			YES
	Claims	1-9		NO
Industrial applicability (IA)	Claims	1-9		YES
	Claims			NO

2. Citations and explanations:				
1	<p>WO 03 040543 A (D1) (cf. figures 1-3) discloses a fuel injection device, in particular for an internal combustion engine having direct fuel injection, having a housing (1) and at least two valve elements (5, 7) which are arranged in the housing (1), are coaxial with respect to one another and are in each case assigned at least one fuel outlet opening (14, 12), wherein a first sealing region (32) is provided on the outer valve element (5) radially outwards from the at least one fuel outlet opening (14) which is assigned thereto, said first sealing region (32) interacting with a valve seat (10) on the housing and being capable of separating the at least one fuel outlet opening (14) from a high pressure connection (16), wherein an additional sealing region (30) is provided on the outer valve element (5) between the at least one fuel outlet opening (14) which is assigned thereto and the inner valve element (7).</p>			
1.1	<p>The subject matter of claim 1 is therefore not novel (PCT Article 33(2)).</p>			

WRITTEN OPINION OF THE
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International application No.

PCT/DE2004/001997

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1.2 Dependent claims 2-8 do not appear to contain any additional features which, in combination with the features of any claim to which claims 2-8 refer back, meet the PCT requirements for novelty or inventive step, because the subject matter of claims 2, 3 is known from D1 and the subject matter of claims 4-8 concerns a minor structural modification to the fuel injection device as per D1, of the kind that a person skilled in the art routinely makes on the basis of familiar considerations.

1.3 The features of independent claim 9 relate to an obvious method for producing an injection valve, of the kind that a person skilled in the art could arrive at without thereby being inventive.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

- 2 Contrary to PCT Rule 5.1(a)(ii), the description does not cite D1 or indicate the relevant prior art disclosed therein.

- 2.1 The description is not consistent with the claims (PCT Rule 5.1(a)(iii)).